

Welcome to the Cardiovascular Health Nova Scotia (CVHNS) e-mail bulletin. The Bulletin has been created to share information about the program's activities, related cardiovascular health initiatives, and ideas from around the province. The Bulletin is published quarterly.

NOVA SCOTIA STROKE CARE AUDIT

As part of its effort to improve the prevention, treatment and rehabilitation of stroke, Cardiovascular Health Nova Scotia (CVHNS), conducted an audit of in-patient care to provide a "snap shot" of the current situation in our acute care hospitals. The data have been used to inform the planning process for the Nova Scotia Stroke System, and later will serve as the baseline for measurement of changes in the processes and outcomes of care that occur as a consequence of service delivery reorganization.

This first-ever province-wide stroke audit involved review of the hospital records of all adults who were hospitalized in Nova Scotia because of an acute stroke or transient ischemic attack (TIA) during fiscal 2004/05. The method of audit was based on a similar study in Ontario in 2002/03. Centrally-trained research nurses performed chart abstraction in each hospital. Using the Registry of the Canadian Stroke Network (RCSN), data were collected on all aspects of acute stroke management, including patient socio-demographics, the use of pre-hospital emergency medical services, emergency department and in-hospital management, complications, and outcomes.

The audit examined the medical records pertaining to 1,387 separations (1,358 individuals), coded with a Most

Responsible Diagnosis of stroke or TIA, from 33 acute care hospitals. The annual rate of hospitalization for stroke and TIA in the province was estimated at 140/100,000, which is similar to the national rate reported in 2006. Hospitalization rates in the District Health Authorities (DHAs) ranged from 110/100,000 in DHA-7 to 180/100,000 in DHA-2 and DHA-8.

Profession	NS %
Dietitian	41
Occupational Therapy	44
Physiotherapy	56
Speech Language Pathologist	20
Social Work	31

The majority (66%) of hospitals in the province managed less than one stroke patient per week. Overall, the median length-of-stay was 9 days, 21% of patients died in hospital, 48% were discharged home, 13% to an in-patient rehabilitation unit, 10% to a long-term care facility, and 8% to another acute facility. The standardized 30-day in-hospital mortality rate was 18% (95% confidence interval, 16-20%), which is lower than the rate published by the Canadian

Institute for Health Information (mainly because of differences in case definition), and in keeping with the rates reported by recent population-based studies in several other countries.

There were significant differences in case mix, treatment, and outcomes between jurisdictions. Care fell short of Canadian Best Practice Recommendations in many areas. For example, stroke unit care (the most effective intervention for stroke) for patients admitted because of an acute stroke was non-existent. Although none of the DHAs had a designated unit for acute stroke patients, all had health professionals recognized by the Canadian Best Practice Recommendations to comprise an interdisciplinary stroke team. However, there were significant between-DHA differences in the proportions of patients assessed by a dysphagia team, occupational therapist, physiotherapist, social worker, and speech-language pathologist.

Detailed analyses of the audit data have been shared with the DHAs to inform their planning of service reorganization to better meet contemporary best practice recommendations. Future audits will be needed to confirm that these changes result in improvements in the processes and outcomes of stroke care as they have in Ontario.

Dr. Stephen Phillips
Stroke Neurologist
Clinical Advisor, Cardiovascular Health Nova Scotia

Learning Opportunities

Upcoming Events

Best Practice and Innovation in Cardiac Rehab, May 2, 2008, Toronto, ON.
Tel: 416-597-3422, ext. 3693
www.torontorehab.com/education

Hypertension Conference: Take Control, May 16, 2008, Ramada Crystal Palace, Moncton, NB. Tel: 506-634-2066
jmaquire@hsf.nb.ca

Canadian Lipid Nurse Network Conference Atlantic Division, From Prevention to Rehabilitation: Promoting Self-management along the Cardiovascular Care Continuum, May 29-30, 2008, Moncton, NB.
Contact Jane Dalton: Tel: 505-648-7648
dalja@reg2.health.nb.ca

Evidence Informed Health Care Practice Workshop, June 1-6, 2008, Hamilton, ON.
www.health-evidence.ca

11th Annual Clinical Day in Cardiology
June 5-6, 2008, Sydney, NS.
Contact Dr. Paul MacDonald:
Tel: 902-567-8007
macdonaldpaul@cbdha.nshealth.ca

IHI: Cracking the Code to Hospital Wide Patient Flow, July 21-22, 2008, Denver, CO.
www.ihl.org

Atlantic Canada Stroke Conference
September 18-20, 2008, Halifax, NS.
Contact Renee Downs: Tel: 902-494-1560
Renee.downs@dal.ca

CVHNS News

Bulletin Survey

Between December 3rd and January 11th, Cardiovascular Health Nova Scotia (CVHNS) conducted a satisfaction survey on our Bulletin. The electronic survey was sent to all Bulletin subscribers. Communications Nova Scotia assisted in developing the survey and reply process which sent anonymous survey responses to our e-mail address. CVHNS received 56 survey responses (11.6% response rate). Responses came in from each DHA and from multiple health care provider types, administrators and industry representatives. The majority (75%) reported that they read all or most of the Bulletin and that they shared it with others. Seventy-five percent reported that they strongly agree or agree that the newsletter helps them feel connected to CVHNS. The feature article and helpful resources received the highest rankings for usefulness. There was little suggestion for change and a lot of positive feedback. Thank you for taking the time to answer our survey.

CVHNS Network Meeting Report

On January 18 & 19, 2008 a Network meeting was held to present CVHNS' Acute Coronary Syndrome guidelines and to identify system level challenges related to transfer and repatriation of cardiac catheterization patients. Participants from each DHA attended and focused on developing a plan of action for their district to address the system challenges. The meeting report will be posted soon on our website. We will be following up with the DHA's to check on progress with plans of action generated during the meeting.

DHA News

Cape Breton Cardiac Wellness Society

In 2001, a group of healthcare professionals met to discuss the need for a local cardiac wellness initiative and to review the types of programs and resources available at that time for persons suffering from cardiovascular disease. In 2001, there were no cardiac rehabilitation programs being offered in Cape Breton.

From these first meetings, focus groups were held to determine what type of programs people with cardiovascular disease (CVD) would like to participate in to lead healthier lives. Following these focus groups, the committee began work to develop a cardiac wellness program that would address the needs and interest of persons with CVD. Based on the CACR guidelines, a community program was developed that incorporated 2 exercise classes and 1 education class per week for 9 weeks and would be held in the evenings. The exercise classes are 60-90 minutes in length and include cardiovascular and muscular endurance, flexibility, support and fun. During the exercise class, a nurse monitors participants' blood pressure and heart rates in response to exercise. The education classes are 60 minutes in length and include topics such as understanding heart disease, medication, nutrition, cooking and stress management. The programs run 3 times per year in Sydney, North Sydney and Glace Bay. Once the core program is completed, participants have the option of continuing to exercise with the group.

Our outcomes have demonstrated improved functional status as measured with a 6 minute walk test as well as improvement in quality of life scores measured with the SF-36 short form.

There is no cost to the participant to join the program. Operating costs are covered by health promotion grants from our community health boards as well as some funding from pharmaceutical firms.

For further information, contact Carol Ferguson, RN co- chair of the Cape Breton Cardiac Wellness Society at 902-563-8567 or fergusonc@cbdha.nshealth.ca.

Helpful Resources

CCS Consensus Conference Guidelines on Heart Failure 2008 update

Arnold JMO, Howlett JG, Ducharme A, et al. Best Practices for the transition of care of heart failure patients, and the recognition, investigation and treatment of cardiomyopathies. *Canadian Journal of Cardiology*. 2008; 24(1):21-40.

Depression Screening-Review Article

Thombs BD, Magyar-Russell G, Bass EB, et al. Performance Characteristics of Depression Screening Instruments in Survivors of Acute Myocardial Infarction. Review of the evidence. *Psychosomatics* 2007; 48:3; 185-195. Visit <http://psy.psychiatryonline.org>.

Focused Update: Guidelines for the management of ST-elevation MI

Antman EM, Hand M, Armstrong PW, et al. 2007 focused update of the ACC/AHA 2004 guidelines for the management of patients with

ST-elevation myocardial infarction: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Group to Review New Evidence and Update the ACC/AHA 2004 Guidelines for the Management of Patients With ST-Elevation Myocardial Infarction). *Circulation* 2007; 117(2):296-329.

Focused Update: Percutaneous Coronary Intervention (PCI)

King SB, Smith SC, Hirshfeld JW, et al. 2007 focused update of the ACC/AHA/SCAI 2005 Guideline Update for Percutaneous Coronary Intervention: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines: (2007 Writing Group to Review New Evidence and Update the 2005 ACC/AHA/SCAI Guideline Update for Percutaneous Coronary Intervention). *Circulation* 2007; 117(2):261-295.

Hyperglycemia and Acute Coronary Syndrome

Deedwania P, Kosiborod M, Barrett E. et al. Hyperglycemia and Acute Coronary Syndrome. A Scientific Statement from the American Heart Association Diabetes Committee of the Council on Nutrition, Physical Activity and Metabolism. *Circulation* (serial online) 2008; 117.

TZDs and Cardiovascular Outcomes

Lincoff AM, Wolski K, Nicholls SJ, Nissen SE. Pioglitazone and risk of cardiovascular events in patients with type 2 diabetes mellitus: A meta-analysis of randomized trials. *JAMA* 2007; 298:1180-1188.

Lipscombe LL, Gomes T, Lévesque LE, et al. Thiazolidinediones and cardiovascular outcomes in older patients with diabetes. *JAMA* 2007; 298:2634-2643.

Update-Stroke Prevention Guidelines

Adams RJ, Albers G, Alberts MJ et al. Update to the AHA/ASA Recommendations for the Prevention of Stroke in Patients with Stroke and Transient Ischemic Attack. *Stroke* 2008; 39: 000-000. Retrieved March 19, 2008 <http://stroke.ahajournals.org/cgi/reprint/STROKEAHA.107/89063>.

Innovative Ideas

Heart and Stroke Foundation: Finding Answers for Life Podcasts

The Heart and Stroke Foundation of Nova Scotia has recently launched a new initiative – research-focused podcasts. The podcasts are a pilot project developed in partnership with the Nova Scotia Health Research Foundation and feature six interviews with Heart and Stroke Foundation of Nova Scotia funded researchers. The topics range from basic science research to research focusing on applied interventions. An evaluation process to determine the utility of using podcasts to communicate about research has been established and the results will be tabled at the end of June 2008 and ready to share by July or August.

Questions about the podcasts can be forwarded to Clare O'Connor, Director of Public Affairs, Heart and Stroke Foundation coconnor@heartandstroke.ns.ca or Ryan McCarthy, Manager of Knowledge Transfer/Exchange, Nova Scotia Health Research Foundation mccartrj@gov.ns.ca.

The podcasts are available through www.heartandstroke.ns.ca/podcasts and are also on iTunes. A brief online survey is attached to each podcast so listeners are able to share their feedback on this innovative method of communicating about research.

Phone Counseling to Lower Cardiovascular Risk

The results of the first year of a British Columbia randomized controlled trial to test the efficacy of a low-intensity lifestyle intervention were recently published in the Canadian Medical Association Journal (October 9, 2007). The researchers studied 611 people in the Fraser Health Region. The participants were divided into two groups; a primary prevention group and a secondary prevention group. The intervention consisted of telephone discussions (on smoking, exercise, nutrition and stress) between a lifestyle counselor and the patients as well as a health report card that was sent to the participants and their family doctors. The control group received usual care. At year's end, the group that received the intervention showed a "statistically significant" reduction in global cardiovascular risk, relative to the control group. The researchers are continuing the study which to date is suggesting that the use of a health report card and tele-health counseling for primary prevention of cardiovascular disease is efficacious. Researchers plan to track the people in the study and their medical data – hospital records, drug costs, doctors' costs – over the next two years.

Your Questions Answered

What should physicians and people with type 2 diabetes do in light of the ACCORD announcement?

Canadian Diabetes Association (CDA) issued the following response to the question February 2008.

"People with diabetes should not make any changes to their treatments or adjust their blood glucose targets without speaking to their healthcare team.

Based on landmark trials such as the Diabetes Complications and Control Trial and the United Kingdom Prospective Diabetes Study, the 2003 CDA's Clinical Practice Guidelines recommend a target A1C $\leq 7.0\%$ for most patients with diabetes, which remains an appropriate goal.

However, until further information is available, physicians and participants should recognize that targeting normal glucose levels (i.e. A1C $< 6.0\%$) over a 2- to 4-year period of time may confer a small increased risk of death in patients with type 2 diabetes who are at high risk for cardiovascular events and who have poor glucose control.

The CDA recommended target of an A1C $\leq 7.0\%$ for most patients with diabetes does offer physicians the option of aiming lower if they feel it is safe for an individual patient.

This is a decision that must be made by the physician and patient, and take into consideration individual risk factors and circumstances.

In addition to blood glucose control, people with diabetes can reduce their overall CV risk by controlling their blood pressure and cholesterol levels and by adopting a lifestyle that includes a healthy diet, regular physical activity, and achieving and maintaining a healthy weight. Quitting smoking is also one of the most important ways to reduce risk."

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